

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018828**Date Inspected:** 21-Dec-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr. Li jia**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girder( OBG)**Summary of Items Observed:**

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

**BAY- 1**

This QA Inspector Randomly observed the following work in progress:

ZPMC personnel heat straightening OBG member identified as 20TR2-033. Distortion appeared to be caused by welding of the material. ZPMC Quality Control (QC) inspector identified as Mr. Xiang feng feng was present to monitor the heat straightening process. The heat straightening appeared to comply with the Caltrans Engineer approved Heat Straightening Report (HSR) HSR (B)-362.

**BAY- 2**

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 07867.

Ultrasonic Testing (UT)

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This QA performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated UT report for this date. The members are identified as OBG Sub assembly plate weld Component. Total number of welds UT Tested: 1 No's. The weld designations are review as follows:

### 1. SA3415-001-002

ZPMC personnel heat straightening OBG member identified as SA7512A. Distortion appeared to be caused by welding of the material. ZPMC Quality Control (QC) inspector identified as Mr. Zhu jun was present to monitor the heat straightening process. The heat straightening appeared to comply with the Caltrans Engineer approved Heat Straightening Report (HSR) HSR (B)-442. Refer the attached photos for reference.

### BAY- 3

Shielded Metal Arc Welding (SMAW) welding of weld joint EP3017-001-026,027. Welder is identified as 037996. ZPMC Quality Control (QC) is identified as Mr. Wang liyang. The welding variables appeared to comply with the Applicable WPS: WPS-B-P-2214-TC-U4b.

Flux Cored Arc Welding (FCAW) Welding of weld joint identified as AH3150-002. Welder is identified as 050977. ZPMC Quality Control (QC) is identified as Mr. Wang liyang. The welding variables appeared to comply with Applicable the WPS: WPS-B-T-2231-ESAB.

FCAW Welding of weld joint identified as AH3150A-064,065. Welder is identified as 208035. ZPMC Quality Control (QC) is identified as Mr. Wang liyang. The welding variables appeared to comply with Applicable the WPS: WPS-B-T-2133-ESAB.

### BAY- 4

This QA observed that no significant work was being performed in this bay during the time QA was present.

### BAY- 8

SMAW welding of weld joint BK004A5-057-112. Welder is identified as 066155. ZPMC Quality Control (QC) is identified as Mr. Liu fa wen. The welding variables appeared to comply with the Applicable WPS: WPS-B-P-2213-B-U2.

SMAW welding of weld joint BK004A1-060-044. Welder is identified as 067904. ZPMC Quality Control (QC) is identified as Mr. Liu fa wen. The welding variables appeared to comply with the Applicable WPS: WPS-B-P-2211-B-U2.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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### Summary of Conversations:

Only general conversation was held between QA and Quality Control (QC) concerning this project.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Prabhu,Surendra

Quality Assurance Inspector

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**Reviewed By:** Hall,Steven

QA Reviewer